

Title (en)
CHILD-RESISTANT CLOSURE

Title (de)
KINDERSICHERHEITSVERSCHLUSS

Title (fr)
FERMETURE A L'EPREUVE DES ENFANTS

Publication
EP 0810954 A1 19971210 (EN)

Application
EP 96903149 A 19960223

Priority
• GB 9600425 W 19960223
• GB 9503810 A 19950224

Abstract (en)
[origin: GB2298194A] A child-resistant closure of the kind comprising an inner closure part 100 carrying an internal screw thread 106 for screw threaded engagement with the neck of a container, an outer closure part 200 retained on the inner closure part 100, a first set of castellations 126 on the inner part 100, a complementary second set of castellations 212 on the outer part 200, a set of resilient blades 216 on one of the inner or outer part to hold the inner and outer parts 100, 200 apart so that the castellations 126, 212 do not engage unless an axial compressive force is applied between the inner and outer parts, and ratchet projections 120 on the other of the inner or outer part adapted to engage the resilient blades 216 only when the outer part is rotated in the screwing-down direction, includes means to reduce the transfer of unscrewing torque from the outer closure part 200 to the inner closure part 100 when a bending moment is applied between the inner and outer closure parts and the outer part 200 is rotated in an unscrewing direction. The preferred means include: (i) radial chamfering or rounding off of one or both sets of castellations 126, 212; (ii) means to reduce rocking of the outer closure part on the inner closure part, especially a cylindrical projection 214 on one of the inner or outer part slidably received in a cylindrical socket 130 on the other of the inner or outer parts, the projection 214 and socket 130 being coaxial with the rotational axis of the closure; (iii) the provision of an integral reinforcing rib (220, Fig 10) on the resilient blades 216; and (iv) the provision of lubricant between abutting surfaces of the inner and outer closure parts; and (v) forming the skirt portion of the outer part of non uniform thickness to minimise the surface area abutment between the inner and outer parts.

IPC 1-7
B65D 50/04

IPC 8 full level
B65D 41/04 (2006.01); **B65D 50/04** (2006.01)

CPC (source: EP US)
B65D 50/041 (2013.01 - EP US)

Designated contracting state (EPC)
AT BE CH DE DK ES FR GB IE IT LI NL SE

DOCDB simple family (publication)
GB 2298194 A 19960828; **GB 9503810 D0 19950412**; AU 4729196 A 19960911; CA 2212663 A1 19960829; CN 1175931 A 19980311; EP 0810954 A1 19971210; JP H11501595 A 19990209; NO 973268 D0 19970714; NO 973268 L 19971024; US 5611443 A 19970318; WO 9626125 A2 19960829; WO 9626125 A3 19961121

DOCDB simple family (application)
GB 9503810 A 19950224; AU 4729196 A 19960223; CA 2212663 A 19960223; CN 96192067 A 19960223; EP 96903149 A 19960223; GB 9600425 W 19960223; JP 52551396 A 19960223; NO 973268 A 19970714; US 46321595 A 19950605